

## Supplementary Online Content

Kundi H, Popma JJ, Khabbaz KR, et al. Association of hospital surgical aortic valve replacement quality with 30-day and 1-year mortality after transcatheter aortic valve replacement. *JAMA Cardiol*. Published online December 5, 2018. doi:10.1001/jamacardio.2018.4051

**eTable 1.** Exclusion criteria

**eTable 2.** Administrative codes used to define covariates

**eTable 3.** Observed 30-day and 1-year TAVR Mortality Rates after exclusion of hospitals performing fewer than 10 TAVRs during the study period among SAVR quality quartiles

This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable 1.** Exclusion criteria

	ICD-9-Code
Concomitant valve surgery or Coronary artery bypass graft surgery (procedure codes present at index)	35.1* 35.20 35.22 35.23 35.24 35.25 35.26 35.27 35.28 35.3* 35.91 35.92 35.93 35.94 35.95 35.96 35.98 35.99 36.1* 36.2 36.3* 36.9*

**eTable 2.** Administrative codes used to define covariates

	ICD-9-Code
Congestive heart failure	398.91, 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0- 428.9
Cardiac arrhythmias	426.13 426.10 426.12 426.0 426.7 426.9 427.0 427.1 427.2 427.3 427.4 427.6 427.8 427.9 785.0 V450 V53.3
Pulmonary circulation disorders	415.11- 415.19, 416.0- 416.9, 417.9
Peripheral vascular disorders	440-440.9, 441.00- 441.9, 442.0- 442.9, 443.1- 443.9, 444.21- 444.22, 447.1, 449, 557.1, 557.9, V43.4
Hypertension, complicated and uncomplicated	401.1, 401.9, 642.00- 642.04, 401.0, 402.00- 405.99, 437.2, 642.10- 642.24, 642.70- 642.94
Paralysis	342.0- 344.9, 438.20- 438.53, 780.72
Other neurological disorders	330.1- 331.9, 332.0, 333.4, 333.5, 333.71, 333.72, 333.79, 333.85, 333.94, 334.0- 335.9, 338.0, 340, 341.1- 341.9, 345.00- 345.11, 345.2- 345.3, 345.40- 345.91, 347.00- 347.01, 347.10- 347.11, 649.40- 649.44, 768.7, 768.70, 768.71, 768.72, 780.3, 780.31, 780.32, 780.33, 780.39, 780.97, 784.3
Chronic pulmonary disease	490-492.8, 493.00- 493.92, 494-494.1, 495.0-505, 506.4
Diabetes, uncomplicated	249.00- 249.31, 250.00- 250.33, 648.00- 648.04
Diabetes with chronic complications	249.40- 249.91, 250.40- 250.93, 775.1
Hypothyroidism	243-244.2, 244.8, 244.9
Renal failure	403.01, 403.11, 403.90, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 585.3, 585.4, 585.5, 585.6, 585.9, 586, V42.0, V45.1, V45.11, V45.12, V56.0- V56.32, V56.8
Liver disease	070.22, 070.23, 070.32, 070.33, 070.44, 070.54, 456.0, 456.1, 456.20, 456.21, 571.0, 571.2, 571.3, 571.40- 571.49, 571.5, 571.6, 571.8, 571.9, 572.3, 572.8, 573.5, V42.7
Peptic ulcer disease excluding bleeding	531.41, 531.51, 531.61, 531.70, 531.71, 531.91, 532.41, 532.51, 532.61, 532.70, 532.71, 532.91, 533.41, 533.51, 533.61, 533.70, 533.71, 533.91, 534.41, 534.51, 534.61, 534.70, 534.71, 534.91
Acquired immune deficiency syndrome	042-044.9

Lymphoma	200.00- 202.38, 202.50- 203.01, 203.02- 203.82, 203.8-203.81, 238.6, 273.3
Metastatic cancer	196.0- 199.1, 209.70, 209.71, 209.72, 209.73, 209.74, 209.75, 209.79, 789.51
Solid tumor without metastasis	140.0- 172.9, 174.0- 175.9, 179-195.8, 209.00- 209.24, 209.25- 209.3, 209.30- 209.36, 258.01- 258.03
Rheumatoid arthritis/collagen vascular diseases	701.0, 710.0- 710.9, 714.0- 714.9, 720.0- 720.9, 725
Coagulopathy	286.0- 286.9, 287.1, 287.3- 287.5, 289.84, 649.30- 649.34
Obesity	278.0, 278.00, 278.01, 278.03, 649.10- 649.14, 793.91, V85.30- V85.39, V85.41- V85.45, V85.54
Weight loss	260-263.9, 783.21, 783.22
Fluid and electrolyte disorders	276.0- 276.9
Blood loss anemia	280.0, 648.20- 648.24
Deficiency anemias	280.1- 281.9, 285.21- 285.29, 285.9
Alcohol abuse	291.0- 291.3, 291.5, 291.8, 291.81, 291.82, 291.89, 291.9, 303.00- 303.93, 305.00- 305.03
Drug abuse	292.0, 292.82- 292.89, 292.9, 304.00- 304.93, 305.20- 305.93, 648.30- 648.34
Psychoses	295.00- 298.9, 299.10, 299.11
Depression	300.4, 301.12, 309.0, 309.1, 311

**eTable 3:** Observed 30-day and 1-year TAVR Mortality Rates after exclusion of hospitals performing fewer than 10 TAVRs during the study period among SAVR quality quartiles

	Quartile 1	Quartile 2	Quartile 3	Quartile 4	p-value
	n=19,754	n=7,568	n=10,072	n=14,221	
30-day Mortality	914 (4.6%)	375 (5.0%)	513 (5.1%)	795 (5.6%)	<0.001
1-year Mortality	3,344 (17.0%)	1,320 (17.5%)	1,834 (18.2%)	2,643 (18.6%)	<0.001